



case

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of

W. STAN WILSON ET AL.

Patent No.: 6,955,688 B2

Issued: October 18, 2005

Serial No: 10/620,942

Filed: July 16, 2003

For: STENT AND CATHETER  
ASSEMBLY AND METHOD FOR  
TREATING BIFURCATIONS

Examiner: Kevin T. Truong

Group Art Unit: 3731

Client ID/Matter No: ACS 64849  
(1252CC2CC)

February 10, 2006  
Los Angeles, California

**Certificate**

**FEB 16 2006**

REQUEST FOR CERTIFICATE OF CORRECTION of Correction

Certificate of Correction Department  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The above-identified patent has been found to have the errors set forth in the enclosed Certificate of Correction. It is requested that this Certificate of Correction be issued and returned to us. Since the error occurred in the final printing phase of the patent, no fee is enclosed. However, should the Office determine that a fee is required, please charge our Deposit Account No. 06-2425.

**FEB 16 2006**

The errors are verifiable in the patent application file as follows:

**ERROR**

Title Page, U.S PATENT DOCUMENTS,  
insert --5,078,726 1/1992 Kreamer--;  
insert --5,078,736 1/1992 Behl--.

Column 1, line 48 continues on with  
"Similar problems" (not a new paragraph).

Column 22, line 38, delete "carnal" and  
insert --carina--.

Column 25, line 20, delete "along an" and  
insert --along the--.

**APPLICATION FILE**

Information Disclosure Statement  
considered by Examiner on November  
26, 2004. See Attachment.

Patent application filed on July 16,  
2003, page 2, line 4. See Attachment.

Patent application filed on July 16,  
2003, page 40, line 26. See  
Attachment.


Examiner's Amendment dated May 4,  
2005. See Attachment.

We respectfully request that this Certificate of Correction be expeditiously issued  
since the errors reported herein were incurred through the fault of the United States  
Patent and Trademark Office.

Attached hereto, in duplicate, is Form PTO-1050, with at least one copy being  
suitable for printing.

Respectfully submitted,

FULWIDER PATTON LLP

By:   
John S. Nagy  
Registration No. 30,664

JSN:ck  
Enclosures

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115714.1

FEB 16 2006

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 6,955,688 B2  
APPLICATION NO.: 10/620,942  
ISSUE DATE : October 18, 2005  
INVENTOR(S) : W. Stan Wilson et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page, U.S PATENT DOCUMENTS,  
insert --5,078,726 1/1992 Kreamer--;  
insert --5,078,736 1/1992 Behl--.

Column 1,  
Line 48 continues on with "Similar problems" (not a new paragraph).

Column 22,  
Line 38, delete "carnal" and insert --carina--.

Column 25,  
Line 20, delete "along an" and insert --along the--.

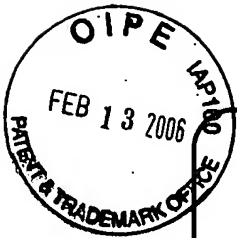
MAILING ADDRESS OF SENDER:

**John S. Nagy  
Fulwider Patton LLP  
6060 Center Drive, 10<sup>th</sup> Floor  
Los Angeles, CA 90045**

This collection of information is required by 37 CFR 1.322 and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief of Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450 Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORM TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

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PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/620,942	
	Filing Date	July 16, 2003	
	First Named Inventor	W. Stan Wilson	
	Art Unit	3731	
	Examiner Name	Kevin T. Truong	
Total Number of Pages in This Submission		Attorney Docket Number	ACS 64849

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	<b>Postcard Request for Certificate of Correction</b>
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	24201	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	FULWIDER PATTON LLP		
Signature			
Printed name	JOHN S. NAGY, ESQ.		
Date	February 10, 2006	Reg. No.	30,664

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on			
Signature			
Typed or printed name	JOHN S. NAGY, ESQ.	Date	February 10, 2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

FEB 16 2006

Substitute for form 1449 PTO

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Complete if Known

Application Number	10555716 10/620/892
Filing Date	January 27, 2003
First Named Inventor	W. Stan Wilson
Art Unit	3731

TECHNOLOGY CENTER 3700

Sheet 5

of 1

Attorney Docket Number

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
		US-5,035,706		05-28-1991	Giantureo et al.	
		US-5,037,377		06-25-1991	Alonso	
		US-5,037,392		07-23-1991	Hillstead	
		US-5,037,427		08-06-1991	Harada et al.	
		US-5,047,050		09-10-1991	Arneson et al.	
		US-5,059,211		10-22-1991	Stack et al.	
		US-5,061,273		10-29-1991	Yock	
		US-5,061,275		10-29-1991	Wallsten et al.	
		US-5,062,829		11-05-1991	Pryor et al.	
		US-5,064,435		11-12-1991	Porter	
		US-5,071,407		12-10-1991	Termin et al.	
		US-5,073,694		12-17-1991	Tessier et al.	
		US-5,078,720		01-07-1992	Burton et al.	
		US-5,078,726		01-07-1992	Kreamer	
		US-5,078,736		01-07-1992	Behl	
		US-5,084,065		01-28-1992	Weldon et al.	
		US-5,089,005		02-18-1992	Harada	
		US-5,089,006		02-18-1992	Stiles	
		US-5,092,877		03-03-1992	Pinchuk	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	7 <sup>3</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind <sup>5</sup> (if known)				
		JP	62-235496 A		10-15-1987	Hitachi Chem Co., Ltd.		
		JP	62-213762		09-19-1987	Nippon Sherwood		
		JP	63-246178		10-13-1988	Yuhichi Yoshikawa		
		JP	63-214264		09-06-1988			
		JP	2-174859		07-06-1990			
		JP	2 255157		10-15-1990			
		JP	4-25755		02-28-1992			
		JP	62-231657		10-12-1987			
		JP	1-299550		12-04-1989			
		JP	3-57465		03-12-1991			

Examiner  
Signature

10 TRUWZ

Date

Considered

11/26/02

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extending into the junction comprising the bifurcation, the stent may block access to portions of the bifurcated vessel that require performance of further interventional procedures. Similar problems are encountered when vessels are diseased at  
5 their angled origin from the aorta as in the ostium of a right coronary or a vein graft. In this circumstance, a stent overlying the entire circumference of the ostium extends back into the aorta, creating problems, including those for repeat catheter access to the vessel involved in further  
10 interventional procedures.

Conventional stents are designed to repair areas of blood vessels that are removed from bifurcations and, since a conventional stent generally terminates at right angles to its longitudinal axis, the use of conventional stents in the region  
15 of a vessel bifurcation may result in blocking blood flow of a side branch or fail to repair the bifurcation to the fullest extent necessary. The conventional stent might be placed so that a portion of the stent extends into the pathway of blood flow to a side branch of the bifurcation or extend so far as to  
20 completely cover the path of blood flow in a side branch. The conventional stent might alternatively be placed proximal to, but not entirely overlaying the circumference of the ostium to the diseased portion. Such a position of the conventional stent results in a bifurcation that is not completely repaired.  
25 The only conceivable situation that the conventional stent, having right-angled terminal ends, could be placed where the entire circumference of the ostium is repaired without compromising blood flow, is where the bifurcation is formed of right angles. In such scenarios, extremely precise positioning  
30 of the conventional stent is required. This extremely precise positioning of the conventional stent may result with the right-angled terminal ends of the conventional stent overlying the entire circumference of the ostium to the diseased portion without extending into a side branch, thereby completely  
35 repairing the right-angled bifurcation.

To circumvent or overcome the problems and limitations associated with conventional stents in the context

positioning guide wire lumen (for FIG. 20A) or pulled back slightly out of distal section 75 of the positioning guide wire lumen (for FIGS. 20B and 20C). Once released by removal of the guide wire, distal section 75 will spring out so that the positioning guide wire can seek out and be advanced into the side-branch vessel. Once the positioning guide wire is advanced in the side-branch vessel, the catheter is again advanced and the stent is implanted in the main vessel in a manner similar to that described for other embodiments. The catheter of FIGS. 20A-20C is designed to allow deployment of a stent very near but not "snowplowing" a bifurcation or side branch and is configured for treating bifurcations as depicted in FIGS. 23A-25B. A commonly encountered situation in which catheter 70 would be used is an LAD that has disease right at and proximal to the diagonal take-off. After a careful look at multiple views, the physician should be convinced that the diagonal is spared, but the lesion is very close and or immediately adjacent to the diagonal take-off, as shown in FIG. 20D. It is very difficult to position a standard stent in the LAD and be certain that the lesion is fully covered and the diagonal is not snowplowed or jailed. The catheter 70, having one wire in the LAD (main vessel) and the other in the diagonal (side-branch vessel), would allow precise definition of the bifurcation and avoid these problems. Square stent 78A, which has both ends transverse to the stent axis, could be deployed just proximal to the carina, in which case the stent distal end may need to be flared a bit, or more likely, relaxed back to where the positioning guide wire 77 is resting against the proximal aspect of the ostium, visually defining the ostium in relationship to the stent and allowing precise deployment.

Several alternative embodiments of main-vessel catheter 70 shown in FIG. 20A, are depicted in FIGS. 20E, 21 and 22. The catheter device shown in FIG. 20E is similar to that shown in FIG. 20A, with the exception that ramp 57 is employed just distal of the distal end of the guide wire lumen 74 so that as guide wire 77 exits the lumen, it will move outwardly along ramp 57 so that it more easily advances into



### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Nagy on 05/03/2005.

The application has been amended as follows:

Claim 33, line 9, replace "associated with" with --disposed on an outer surface of--.

Claim 35, line 4, replace "an outer" with --the outer--.

2. The following is an examiner's statement of reasons for allowance: None of the prior art of record disclose or suggest a positioning guide wire lumen disposed on an outer surface of the expandable member and wherein at least a portion of the positioning guide wire lumen is external to the catheter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin T. Truong whose telephone number is 571-272-